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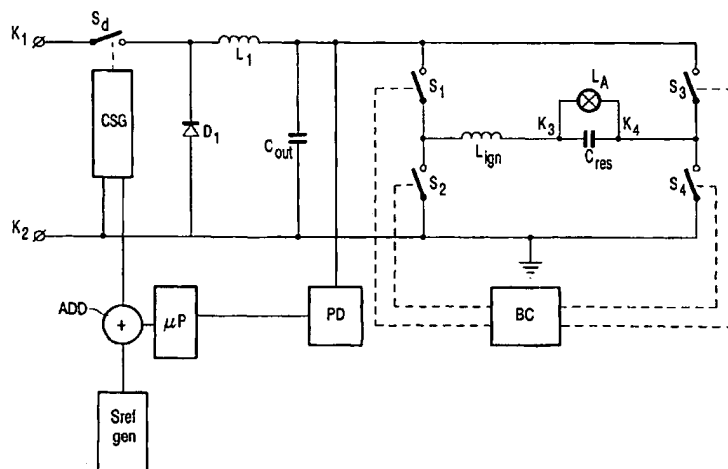
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— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,

[Continued on next page]

(54) Title: CIRCUIT ARRANGEMENT FOR OPERATING A HIGH PRESSURE DISCHARGE LAMP



(57) Abstract: A circuit arrangement for operating a high pressure discharge lamp comprising a DC/DC down converter which provided a DC current to an output capacitor (Cout), the output capacitor (Cout) being connected in parallel to a full bridge inverter (S1-S4). The current provided by the DC/DC converter is regulated via a control circuit (CSG) which renders alternatively conductive and non-conductive a switching element (Sd), in dependency of the amplitude of the voltage across the output capacitor (Cout). In particular, a reference signal (Sref) indicative of the DC current to be supplied by the DC/DC converter, is periodically modulated at each commutation of the full bridge inverter (S1-S4) by a microprocessor (μP) in dependency of the peak voltage detected on the output capacitor (Cout) by a peak detector (PD). Consequently, it can be achieved a reduction of resonance phenomena between the output capacitor (Cout) and the component of the full bridge converter such as the ignition choke (Lign) and/or the lamp (LA).



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# INTERNATIONAL SEARCH REPORT

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H05B41/282 H05B41/288 H05B41/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 962 981 A (KOMATSU NAOKI ET AL) 5 October 1999 (1999-10-05) column 4, line 36 -column 5, line 52; figures 1,2	1-10
A	US 6 437 515 B1 (SHINBORI HIROICHI ET AL) 20 August 2002 (2002-08-20) column 5, line 36 -column 6, line 65; figure 2 column 13, line 36 -column 13, line 57; figure 14	1-10
A	US 5 623 187 A (HOLTSLAG ANTONIUS H ET AL) 22 April 1997 (1997-04-22) column 3, line 30 -column 5, line 53	1-10
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Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 324 078 B1 (HORI KAZUHIRO ET AL) 27 November 2001 (2001-11-27) column 16, line 40 -column 16, line 58; figure 26 ---	1-10
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